Preface

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Biographical notes: Minoru Uehara received his ME from the Department of Electrical Engineering of Keio University, Japan, in 1989 and his DE from the Department of Computer Science of the same university in 1995. He joined Toyo University in 1993 as a Lecturer at the Department of Information and Computer Sciences. He has worked as an Associate Professor since 1998 and as a Professor since 2005. His research interests are distributed computing, information retrieval and so on. He is a member of the IEEE CS, the ACM and the Information Processing Society of Japan (IPSJ).

Muhammad Younas is a Senior Lecturer of Computer Science at the School of Technology of Oxford Brookes University, UK. He has a PhD in Computer Science from the University of Sheffield. His research expertise is in web-based technologies, including web database systems, web services, web searching and mobile web applications. He serves on the Editorial Board of international journals and steering and programme committees of international conferences.

Web and grid services technologies enable loosely coupled distributed software applications to be dynamically discovered and integrated into new applications in order to provide enhanced functionality and to ensure collaboration on complex scientific activities. These capabilities of the web and grid services make them a popular platform for developing advanced applications which involve complex computation and demand huge compute resources. Examples include e-business applications, healthcare applications, environment and ecology applications and bioinformatics.

The theme of this special issue is on the web and grid services for advanced network and information systems. This special issue includes five papers. These papers are the extended versions of the papers which were presented at the IEEE 22nd International Conference on Advanced Information Networking and Applications (AINA2008) held in Okinawa, Japan on March 2008.

In the first paper, 'A cluster analysis and agent-based trust model in a grid environment supporting virtual organisations', Junzhou Luo and Xudong Ni present agent-based trust model that adds VO (Virtual Organisation) trust relationship to grid entities. A clustering analysis method is also developed in order to evaluate trust of grid entities in VOs. The proposed method improves trust without causing heavy overhead.

In the second paper, 'A web interface for the Hypersim-G Grid simulation package', Fatos Xhafa *et al.* present the design and implementation of a web interface for HyperSim-G Grid simulation package. A grid simulator is an important tool to design grid application. This simulator makes the grid easy to use by providing a web interface for the grid simulator.

In the third paper, 'OVerFA: a collaborative framework for the semantic annotation of documents and websites', Francesco Moscato *et al.* present a framework called OVerFA (Ontology-based VERsioned Framework for Annotation). This work highlights the importance of semantic annotation in collaborative environment. It then provides facilities for such annotation through the proposed OVerFA. It is claimed that the traditional annotation tools do not support collaborative annotation.

In the fourth paper, 'Semantic web services discovery based on structural ontology matching', Beniamino Di Martino presents structural ontology matching algorithm and a prototype tool for discovering web services, uniform graph-based representation of ontology, the different web service descriptions, and the integrated syntactic and structural matching of graph representations.

In the last paper, 'The design and implementation of a Click-Search interface for web browsing using cellular phones', Daijiro Komaki *et al.* present a Click-Search interface for a cellular phone. In a Click-Search, users can search using only pointing devices. However, the cellular phone involved has no pointing device. They overcome this issue by using fewer keys.

On behalf of the programme committee of AINA2008, we would like to thank all authors who submitted and contributed papers to this special issue. We would also like to thank Leonard Barolli (Fukuoka Institute of Technology, Japan) for his useful comments and support in editing this special issue.